



eintelligence - Innovation Disclosure

Disclosure CM05034H (11599)

ID: CM05034H (11599)
Title: Method to allow a mobile node attached to a mobile network to roam from the mobile network to another

Innovators: Adam Lewis, Narayanan Venkitaraman
Status: Filed
Submitted Date: 25 Oct 2001
Review Date: 11 Dec 2001 1:45 PM
Motorola Business: GEMS
Patent Committee: Schaumburg - Systems
Business Unit: GEMS-GTDG (Borth)
Organization: CGISS, GTDG, ADVNCD TECH
Department: DQ503
Location:
Submit Country: USA
Last Modified Date: 25 Oct 2001

Workflow

Role	Name	Action
First Innovator	Adam Lewis	Verification Complete 10/29/2001
Co-Innovator	Narayanan Venkitaraman	Verification Complete 10/29/2001
Witness	Russ Marten	Acknowledgement Complete 10/25/2001, Notebook Not Signed
Witness	Fareed Masarraf	Acknowledgement Complete 10/25/2001, Notebook Signed
Manager	Bob Hug	Acknowledgement Complete 10/30/2001
Technical Reviewer	Rob Biggs	Complete 11/28/2001
Technical Reviewer	Donald Newberg	Complete 11/28/2001

Reviewer Information

Role	Name	Action
Technical Reviewer	Rob Biggs	
Technical Reviewer	Donald Newberg	

Documents

	Document Name	Description	Document Type	Uploaded By	Uploaded Date	Size
	Visiting Mobile Node.doc		Unspecified		25 Oct 2001	46 Kb

Questions

Name of Innovation or Engineering Development?

Method to allow a mobile node attached to a mobile network to roam from the mobile network to another

What is the problem(s) to be resolved by or need(s) for your Idea?

A mobile node, while attached to a mobile router, appears from its point of view to be stationary. Because the node is not changing access points (so long as it is attached to the mobile network) it will not find it necessary to perform mobility management. Therefore, it maintain connectivity to its correspondent nodes, mobility management must be performed by the mobile router on behalf of its attached hosts. All correspondent nodes will reach the mobile node via binding updates sent by the mobile router. When the time comes for the mobile node to leave the mobile network, it will need to update all its correspondent nodes with its new location. However, since the mobile node was not performing mobility management to begin with, it will not know who to send binding updates to – the mobile node loses all connectivity to all its correspondent nodes and herein lies the problem.

What patents or publications describe your idea and why don't they resolve the problem(s) or fulfill the need(s)?

Paris Labs proposal – the mobile network solution proposed by Paris Labs has the mobile router multicast binding updates to all correspondent nodes on behalf of the attached mobile nodes. Because this solution places all mobility management in the mobile router, the mobile node does not know who to update when it leaves the mobile network.

Advanced Technology proposal – the original mobile network solution proposed by ATS also places all mobility management in the mobile router. Upon changing networks, the mobile router sends a binding update to all relevant correspondent nodes. Again, the mobile node has no knowledge of its mobility while attached to the mobile router and therefore does not know who its correspondent nodes are once it roams from the mobile network.

What is the idea you are disclosing? Please provide a written description summarizing the idea. Please define all acronyms and other terms of art used.

Description too long to list in 2000 words or less - refer to attached document.

How does this idea resolve the problem(s) or fulfill the need(s) in a new way?

What is new about this invention is the fact that previous arts placed all mobility management either in the host or in the router. This invention obtains the best of both worlds by placing minimal mobility management in the host and maximum mobility management in the router. This supports the idea that a mobile host should not worry about mobility when its relative point of attachment does not change. Further, the algorithm for using a "nested lookup" is entirely new and unexplored by the previous arts.

How or where will this idea be used (e.g. what process or product will it be applied to)?
Wideband multimedia systems

Please enter one or more key words that may be used to identify your disclosure.

Is this disclosure a resubmission of a disclosure you have previously submitted?
NO

Please enter the forum from which this idea originated - e.g. Quest for Innovation, Advanced Inventing Session, Patent Scrub, etc. (Optional).

Do you plan to disclose your idea outside of Motorola (e.g. conference, publication, customer meeting, product offering, etc.)?

YES, on Oct 25, 2001

Is your idea known or has it been disclosed outside of Motorola without a duty of confidence (e.g., non-disclosure agreement, joint development agreement, etc.)?
NO

Has a product incorporating your idea been sold, offered for sale, placed in production, qualification, sampled, described in any publication (including Motorola promotional literature), marketed, shipped to anyone outside of Motorola (customer or distributor), or placed into inventory?

NO

What is the earliest verifiable date that you communicated your idea to an individual that is NOT an Innovator (e.g., the date a non-Innovator witness signed your engineering notebook)?
~~(REDACTED)~~

Was your idea created or developed through work performed with a consortium, alliance, government contract, university, or joint venture?

NO

Please specify the Export Control Classification Number(s) (ECCN) to which this disclosure pertains

Unknown

Standards

None Selected

Key Technologies

None Selected

Innovators

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OCT-04-2005 19:56 FROM:

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8475760721

TO: USPTO

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Last Updated: 21 September 2005

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